C.F. ADAMS—AN AMERICAN TAXIDERMIST AT AUCKLAND MUSEUM, 1885–86

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Abstract. In the early 1880s, H.A. Ward, an American dealer in natural history specimens, helped Auckland Museum to recruit a taxidermist—C.F. Adams—who was trained at Ward's own establishment in Rochester, New York State. Adams worked at Auckland Museum in 1885 and 1886, where his skill in mounting birds for the displays in the museum's Princes Street building was much praised. He created the museum's first natural history dioramas—two small exhibits depicting tuataras and keas—that were pioneering developments at the time. Adams left Auckland early in 1887, visiting the main New Zealand cities and commenting briefly (in a letter to T.F. Cheeseman) on the bird displays in their museums. He then travelled via eastern Australia to British North Borneo (now Sabah, Malaysia), where he collected mammal skins. He returned to the U.S. in 1888, and while at Champaign, Illinois, mounted Bornean mammals for shipment to Auckland Museum, and also provided some U.S. herpetological specimens.

KEYWORDS: Birds; mammals; history; taxidermy; dioramas; Auckland Museum; Colonial Museum; Canterbury Museum; Otago Museum; New Zealand; Australia; Sabah; Borneo; United States; C.F. Adams; H.A. Ward; T.F. Cheeseman.

INTRODUCTION

Museums that display land vertebrates specimens in their public galleries, by and large need a taxidermist to prepare the animals. Employing, or paying for the services of, a taxidermist is a big expense for small museums, and was a major problem for New Zealand's developing museums during the colonial period. Auckland Museum began in 1852 and not until 1908, with the appointment of L.T. Griffin as preparator, did taxidermy skills become available to the museum on a continuing basis (Gill 2000).

Between 1852 and 1908 only three taxidermists are known to have prepared finished specimens for Auckland Museum, though there must have been others. In 1856–57, Mr I. St John of Nelson supplied mounted native birds that he caught and prepared locally (Park 1999). The Austrian collector and taxidermist Andreas Reischek (1845–1902) spent 12 years in New Zealand (1877–1889). It seems he was employed as taxidermist at Auckland Museum in 1880–81, and supplied further specimens at other times, presumably for purchase by the museum (Gill 2000).

Henry (H.A.) Ward, a natural history collector and dealer from Rochester, New York State, visited Auckland in about 1881. He was well known as an advisor to museums (Kohlstedt 1980), and he undertook to recruit from America a taxidermist for Auckland Museum. In 1883–84 a permanent taxidermist looked imminent—"a thoroughly competent workman has been selected,

and in a few months will arrive in Auckland" (Auck. Mus. Annual Report 1883–84, p. 7). However, he died, and another person had to be selected (Annual Report 1884–85, p. 7). The taxidermist in question was C.F. Adams.

The purpose of this report is to summarise information on C.F. Adams' activities and travels, both within New Zealand and overseas, and to list specimens collected and prepared by him for

Auckland Museum. The information was gleaned from:

(1) The Annual Report of the Auckland Institute and Museum (Ann. Rep.).

(2) Correspondence in the Auckland Museum archives to and from T.F. Cheeseman (1845–1923), the museum's Curator. There are three letters from Adams to Cheeseman (1887, 1890) in MA95/38/1, and two letters from Adams to Cheeseman (1892) in MS58, Box 1, Folder 1(b). In the museum letter-books (MA96/6) there are copies of many relevant letters (1885–91) from Cheeseman to H.A. Ward, Adams himself, and others.

(3) Consideration of land vertebrates specimens in the Auckland Museum collection which registration details associate with C.F. Adams as collector or presenter (Tables 1–3). Presumably

in all or most cases he was also the preparator of the specimens.

ACTIVITIES IN NEW ZEALAND, 1885-86

C.F. Adams seems to have reached Auckland early in 1885. Auckland Museum then occupied a building in Princes Street (Wolfe 2001). A letter from Cheeseman to H.A. Ward (29 April 1885; MA96/6 museum letter-book 2, p. 278) states: "I ought long ago to have written thanking you for the trouble you have taken in supplying us with a taxidermist, but I have waited while Mr Adams has been here some little time, so that I might tell you exactly how he suits. I like him very much. He is a fair workman, very attentive to his duties, and a nice quiet fellow into the bargain."

On 22 June 1885 Cheeseman told Ward that "Adams has got quite a number of specimens set up since he arrived, and his work looks very well" (MA96/6 museum letter-book 2, p. 291). In the first year, Adams probably spent most of his time mounting local birds newly brought to the museum, and foreign birds and mammals that had been received on exchange in recent years

in an unfinished state. Then, in 1886, he travelled to collect local material.

Table 1 lists 22 New Zealand birds, plus tuataras, that are given in the old, inactive Blue and Brown Books, or in the current active catalogues, as having been collected or presented by C.F. Adams. These specimens were presumably also prepared by Adams. All this New Zealand material was received in 1886. Adams' specimens were collected from the Auckland area (including Manukau Harbour), the Waitakere Ranges, Hauraki Gulf islands (Rakino, Motutapu), Pirongia (Waikato), Cuvier Island (off Coromandel Peninsula) and Karewa Island (Bay of Plenty). The visit to Cuvier Island was in October and November, as indicated by labels with the specimens.

The specimens in Table 1 are only those for which Adams is recorded as collector or presenter. The many other birds the museum received in 1886 from other collectors and donors were presumably also prepared by Adams, but the preparator was not noted in the early registers. One such bird is an articulated skeleton of a dabchick (*Poliocephalus rufopectus*, Fig. 1), received in 1886, presumably as a corpse, and presumably skeletonised and articulated by Adams.

Five specimens of North American birds, one mount and four articulated skeletons, were received from Adams in 1885 or 1886 (Table 2). Adams may have brought these with him, or arranged for them to be sent during his time in Auckland. Fig. 2 shows one of these birds.

Table 1. New Zealand birds and reptiles known to have been collected and/or prepared by C.F. Adams for Auckland Museum. Six specimens are recognisable in the museum collections, as indicated by modern LB numbers in bold.

Group of tuataras *Sphenodon punctatus* (4 or 5) and petrels (3) Blue Book 1058 (= 1088) (mounts); Karewa Island; collected 1886.

Spotted shag *Stictocarbo punctatus* ("Phalacrocorax punctatus") Blue Book 930 (mount; destroyed 1989), 931 (skeleton); Rakino Island; collected 1886.

New Zealand falcon *Falco novaeseelandiae* ("Harpa novae-zelandiae") Blue Book 840, 841 (both eggs); Cuvier Island; presented 1886.

New Zealand dotterel *Charadrius obscurus* ("Ochthodromus obscurus") Blue Book 852 (skeleton); Manukau Harbour; collected 1886.

White-fronted tern Sterna striata ("Sterna frontalis")

Blue Book 887 (LB2907, mount), 888 (mount?), 889 (LB311, articulated skeleton); Motutapu Island; collected 1886.

Morepork Ninox novaeseelandiae

Blue Book 833 (mount?); vicinity of Auckland; collected "1876" (presumably an error for 1886).

Sacred kingfisher Todiramphus sanctus ("Halcyon vagans")

Blue Book 800, 801 (both mounts?); Auckland Harbour; collected 1886.

Tui Prosthemadera novaeseelandiae

Blue Book 786 (mount?); Waitakere; collected 1886.

Bellbird Anthornis melanura

LB4395 (study-skin); Cuvier Island; collected Nov. 1886.

Tomtit Petroica macrocephala ("Petroeca toitoi")

Blue Book 755 (mount); Pirongia Mountain; collected 1886; destroyed.

Saddleback Philesturnus carunculatus

LB4537-9 (all study-skins); Cuvier Island; collected Oct. 1886.

Chaffinch Fringilla coelebs

Blue Book 344 (mount?); Auckland; collected 1886.

House sparrow Passer domesticus

Blue Book 353 (mount?); Auckland; collected 1886.

Cheeseman regretted Adams' departure early in 1887. "I am sorry that my present assistant, Adams, cannot see his way to remain, for he is a really good all round man—both in taxidermy, osteology and modelling." (Cheeseman to Prof. Parker, Dunedin, 11 August 1886; MA96/6 museum letter-book 2, p. 423). Regarding a successor, Cheeseman commented in the same letter: "I should like to have a man who has had a good training at some first class Museum, or like Adams, at an establishment similar to Prof. Ward's, at Rochester." This shows that Ward had provided someone trained at his own biological supply house.



Fig. 1. Articulated skeleton of dabchick *Poliocephalus rufopectus* (LB304, Blue Book 1001); Lake Whangape, Waikato, presented by Mr Brookes 1886. Presumably prepared by C.F. Adams. Photo: Wm. Beattie snr., c. 1900; Auckland Museum B13552.

Table 2. Birds from the United States sold by C.F. Adams to Auckland Museum, or exchanged, and presumably prepared by him. Four specimens survive in the museum collections, as indicated by modern LB numbers in bold.

Brown pelican Pelecanus occidentalis

Blue Book 698, LB337; articulated skeleton; Florida; exchanged 1886.

Roseate spoonbill Ajaia ajaja (Fig. 2)

Blue Book 652, LB8490; mount; Florida; purchased 1885.

White ibis Eudocimus albus

Blue Book 656, LB298; articulated skeleton; Florida; purchased 1885.

Black skimmer Rhynchops niger

Blue Book 696; articulated skeleton; Florida; exchanged 1886; destroyed 1984.

Parakeet auklet Cyclorrhynchus psittacula ("Phaleris microceros")

Blue Book 709, LB321; articulated skeleton; California; exchanged 1886.



Fig. 2. Mounted roseate spoonbill *Ajaia ajaja* from Florida (LB8490, see Table 2). Obtained from C.F. Adams in 1885 and presumably mounted by him. Photo: B. Gill.

NATURAL HISTORY DIORAMAS

In 1886, Auckland Museum made what seem to have been somewhat pioneering attempts to go beyond individual animals in glass cases, and produced "habitat groups" or what we would today call dioramas. Adams presumably mounted the animals and modelled the backgrounds, and it was presumably his expertise that made the dioramas possible. In a description of Auckland Museum, Bather (1895) noted: "Three cases with birds in their natural surroundings are of much interest." However, he mentioned only two, dealing with the "Kea parrot" (*Nestor notabilis*) and the "Tuatara lizard" (*Sphenodon punctatus*). The third one was probably a group of wekas (*Gallirallus australis*).

TUATARA DIORAMA

This was "a special group, showing the nature of the habitat and special surroundings of the Tuatara Lizard (*Sphenodon*)" (Ann. Rep. 1886–87, p. 6). Bather (1895) noted that it "shows the Tuatara lizard in the holes of the Mutton-birds, *Puffinus brevicauda*, with whom 'as a rule it lives amicably, but the two may sometimes disagree." Fig. 3 shows a display of terns in the museum, behind which, to the left, is visible what appears to be the tuatara diorama. It is a small case on legs, about 1.5 m wide, glazed only at the front. A tuatara appears to be present in the foreground, with seabird burrows and vegetation behind, and a painted scene at the back.

There are contradictory indications of exactly what this exhibit contained. Entry 1058 (Blue Book) lists "Group of Tuatara Lizards (5) with 3 Puffinus", and states "also entered under 1088". Entry 1088 lists "Group containing 2 Puffinus griseus [sooty shearwaters], 1 Pelecanoides urinatrix [diving petrel] with 4 Tuatara Lizards". Both entries state that all these specimens were collected

on Karewa Island by C.F. Adams in 1886, and he presumably mounted them.

KEA DIORAMA

The Annual Report for 1886–87 (p. 6) also announced a kea display. Entry 1057 (Blue Book) is for a group of keas attacking a lamb, the specimens obtained in 1886 "from Otago Alps" and "Prepared in Museum". "The case represents a ravine off the Canterbury plains . . . In the foreground is a parrot engaged on a dead lamb, while in the distance others are seen flying after the scattered flocks" (Bather 1895). Fig. 4 shows an old photograph that is believed to depict this diorama. Adams was presumably the taxidermist and diorama-maker, but the backdrop is thought to have been painted by local artist Kennett Watkins (Wolfe 1998).

WEKA DIORAMA

The third display mentioned by Bather was probably the weka diorama. A display at Auckland Museum showing a family party of wekas was illustrated by Harper (1900), and this display is visible above the (larger) tuatara display in Fig. 3. Entry 1087 (Blue Book) is for "Group of 2 adult Ocydromus Earlii [weka *Gallirallus australis*] and 5 young ones" that were "Collected at Waikato, mounted & presented by F.H. Combes". Though received in 1886 they were not the work of C.F. Adams and the background painting is crude.

TRAVELS IN NEW ZEALAND, 1887

Cheeseman wrote to Ward on 26 February 1887 that "Adams has just left us en route for Borneo" (MA96/6 museum letter-book 2, p. 480). Letters from Adams to Cheeseman (MA95/38/1)



Fig. 3. Habitat group of white-fronted terns *Sterna striata*, completed 1918–19, in the upstairs gallery of the Main Hall of Auckland Museum. Behind the tern case to the left are two small cases that appear to be the older displays of tuataras (below) and wekas (above). Photo: Auckland Museum C27027.



Fig. 4. Keas feeding on a dead lamb, thought to be the 1886 Auckland Museum display with taxidermy by C.F. Adams and background painting by K. Watkins. Photographer unknown.

show that he travelled to several ports in New Zealand en route to Australia. The first letter was written from Port Chalmers, Dunedin, on 19 February 1887. "This is the third day the steamer has been lying here and we are not to get away until tomorrow evening. . . . As a consolation for this long delay . . . we are to call in at Milford Sd. being a treat that the U.S.S.Co. [Union Steamship Company?] occasionally give their passengers. Well I have visited the museums. The Wellington one [Colonial Museum, now Museum of New Zealand Te Papa Tongarewa], as you know, is not well advanced in a Zoological direction and I found things not nicely arranged and gotten up. So many small cases scattered about. There they have several albino specimens. A pure white pigeon[,] also, Tui, Pukeko, Kaka, Wattled Crow [kokako] and Giant Petrel."

"They also have a similar lot at Christchurch [Canterbury Museum]. They certainly have a lar[g]e museum at the latter place but I was rather disappointed with it. It is not nicely kept[,] that is old labels are left tied to the legs of birds and the mounting is not good. Of course the collection is large and valuable but the museum here in Dunedin [Otago Museum] has pleased me most. They have a large zoological collection here which is nicely arranged in wall cases similar to yours [at Auckland Museum] and the specimens are well done and well kept. Very few unsightly things in the whole lot. Mr. Jennings does very good work and as he has been here from the commencement the work is all of one class. They also have a good collection of Moa skeletons here (eight good ones) besides some good ones of the larger mammals. . . . I have seen some specimens of Athene albifacies [laughing owl *Sceloglaux albifacies*, now extinct] in Dunedin [presumably stuffed rather than live specimens] and think if you would lodge an order with Mr. Jennings he would obtain one for you. . . . Also Smyth [William Smyth, commercial taxidermist at Caversham, Dunedin] has a good skin of Diomedea exulans [wandering albatross]. . . . Smyth is a man about 50 yrs old so I don't think he will ever improve much".

TRAVELS ABROAD, 1887

The second letter is from Sydney, Australia, 15 March 1887. Adams advised Cheeseman that he had sent him a box for redirection to the U.S. It contained "some N.Z. bird skins which I got of[f] Smyth while in Dunedin". Adams had hoped to "get some things of[f] Mr Ramsay [director, Australian Museum, Sydney] to put with them but he is so bound up by 'Red tape' that he is not free to deal without the matter being brought before a large committee". "They have good museums both in Melbourne and Sydney but there is a great lack of good foreign mammals here." "I was fortunate enough to meet a young man in Melbourne who was three years in North Borneo. He gave me a great deal of information and furnished me with letters to several of his friends including the Governor. He . . . does not think any collector has been in that particular place before. Look out for some good things and write me when you can, to Sandakan [capital, until 1947, of] British North Borneo [now Sabah, Malaysia]."

Adams evidently reached Borneo, and three of the Bornean specimens supplied to Auckland Museum are labelled "near Sandakan" or "Kinabatangan River" (Table 3) showing that he indeed visited British North Borneo as planned. In a letter, dated 29 December 1887, to the Bank of New Zealand, Cheeseman authorised payment to Adams at Singapore of up to £50 for skins (MA96/6 museum letter-book 2, pp. 540–1). The money would allow Adams to continue exploring. The skins were sent to Auckland in a cask of brine. Cheeseman's letter at the same time (MA96/6 museum letter-book 2, pp. 542–3) commented thus to Adams on his travels: "After reading your letter [not located], I think that on the whole, considering the people you have to deal with, the nature of the country, and the climate, you have not done at all badly."

Cheeseman's main news was the death of Sir Julius Haast, Director of Canterbury Museum, and he ended "I am very well, and so are all our people."

Table 3 shows the 13 Bornean mammals and two Bornean birds that Adams supplied to Auckland Museum. The museum wanted mounts for display, but the darter is a study-skin. It has a label attached (64 mm x 25 mm) on one side of which is machine-printed "C. F. ADAMS" and "BORNEAN COLLECTION". Such a printed label suggests that on this expedition Adams made a large collection of study-skins, and others may survive in other museums.

Table 3. Mammals and birds from Borneo (i.e. Sabah, Malaysia) collected and prepared by C.F. Adams for Auckland Museum. Received 1890; all mounts except *Anhinga*. Seven specimens are recognisable in the museum collections, as indicated by modern LM and LB numbers in bold.

Orang-utan *Pongo pygmaeus* (Fig. 6) Blue Book 47, **LM381**, near Sandakan.

Grey gibbon *Hylobates muelleri* (Fig. 5) Blue Book 45 (**LM383**, adult), 46 (**LM384**, juvenile); near Sandakan.

Proboscis monkey *Nasalis larvatus* Blue Book 42, **LM299**.

Langur *Presbytis cristata*Blue Book 43; destroyed 1980s.

Macaque *Macaca* sp. Blue Book 40; destroyed 1980.

Tree shrew *Tupaia* sp. Blue Book 55; destroyed 1915.

Flying lemur *Cynocephalus variegatus* ("Galeopithecus volans") Blue Book 54; destroyed 1914.

Giant flying squirrel *Petaurista petaurista* Blue Book 85, **LM411**.

Palm civet *Paradoxurus hermaphroditis* Blue Book 62; missing since 1981.

Otter civet *Cynogale bennettii* Blue Book 63; destroyed 1980s.

Malayan sun bear *Ursus malayanus* Blue Book 67, missing (could be LM243 or LM424).

Chevrotain *Tragulus javanicus* Blue Book 99, **LM398**.

Darter Anhinga melanogaster LB6931; skin; Kinabatangan R.; collected Jun. 1887.

Great argus pheasant *Argusianus argus* ("Argus grayi") Blue Book 609; missing (could be LB4334).

BACK IN THE UNITED STATES, 1888-92

Cheeseman wrote to Adams on 5? [illegible] October 1888 (MA96/6 museum letter-book 2, pp. 602–3) acknowledging an August letter [not located] that had announced Adams' safe return to the U.S. The cask of Bornean skins had been received in Auckland after long delays, but "... as we shall probably have to send them out of the Colony to be mounted, I may as well ask you what you would charge for doing them for us ..." Subsequent letters from Cheeseman show that the argus pheasant was "set up" in Auckland but that the Bornean mammal skins were sent to Adams in the U.S. for mounting. There were many instructions on the desired result, particularly concerning the orang-utan. Finally, the finished mounts were shipped to Auckland from Adams' workshop. Cheeseman wrote on 14 June 1890 (MA96/6 museum letter-book 2, pp. 731–2): "The following steamer brought the animals in very good condition and [pen?]ding the erection of a new show-case they have been put in the lecture-room, and have attracted a great deal of attention from visitors. I hear nothing but praises of the manner in which they are mounted . . . I will only offer one piece of criticism – would it not have been better to have shewn the teeth of the Orang?"

The total bill came to £47-11-3, with unexpected shipping costs adding another £29. The Annual Report for 1890–91 (p. 7), stated that the Bornean mammals purchased from (and "elegantly mounted" by) C.F. Adams were "placed in a new show case specially erected for them in the centre of the Museum Hall". They were declared to be in many respects "the most important addition received by the Museum for several years." Fig. 5 shows two of the Bornean mammals, a mother gibbon with infant. Fig. 6 shows a printed label for the orang-utan. This was presumably used in 1890, or soon after, but whether it was printed in New Zealand, or printed in America and supplied by Adams, is not known.

A letter from Adams to Cheeseman (10 July 1890; MA95/38/1), sent from Champaign, Illinois, gave much detail of the preparation of the orang-utan. "The lips of an Orang-utan are so exceedingly thick that, to me, an open mouth is a disgusting sight and besides I could not think of a natural excuse why the animal should have its mouth open." "I am glad you are pleased with my work, the pedestals &c. It is really too bad that the freight charges were so very excessive."

At the end of the letter Adams admits that "of late I have been thinking rather seriously of taking another tour of the world . . ." despite a tendency to "suffer so from sea-sickness". He was also considering a trip within the U.S. "to get skins of some of our large mammals which are fast disappearing." "I have disposed of quite a large number of my specimens to several of our public institutions and in each case they were very well pleased with my preparations."

Also sent to Auckland Museum in 1890 was a collection of North American salamanders ("alcoholic Batrachia"). A list of these made out by Adams (Land Vertebrates department files) shows 14 specimens of seven species, but only two survive: LH123 (*Cryptobranchus alleganiensis*; Hot Springs, North Carolina) and LH124 (*Necturus maculosus*; Cincinnati, Ohio).

In a letter from Champaign dated 24 March 1892 (MS58, Box 1, Folder 1b), Adams reported that he "took up some World's Fair work [Columbian Exposition, Chicago, 1892–93] for the Ill's. State Lab. of Nat. Hist." In another letter from Champaign, dated 20 April 1892 (MS58, Box 1, Folder 1b), Adams gave Cheeseman much detail of an expedition to the Galapagos Islands in 1891 that Adams made with Dr Baur of Clark University, Worcester, Massachusetts. He ended by expressing a hope that Cheeseman would come to the World Fair in Chicago and allow Adams the chance to entertain him.



Fig. 5. Mounted grey gibbons *Hylobates muelleri* (LM383-4, see Table 3). Collected by C.F. Adams in Borneo (Sabah), prepared by him in the U.S. and received by Auckland Museum in 1890. Photo: B. Gill.

DISCUSSION

In the late nineteenth century, Auckland Museum had around 100 visitors per day on weekdays, and 200 on Sundays, which was about one-third as many visitors as the Australian Museum in Sydney attracted at the same period (Bather 1895). Building up displays of mounted mammals and birds to delight and educate the public was a major preoccupation. The museum was therefore fortunate to obtain the services of C.F. Adams as taxidermist, from all accounts a pleasant man whose work met T.F. Cheeseman's exacting standards. His engagement was for just two years, but much mounting of specimens for display was achieved in that period. With the similarly short engagement of Andreas Reischek (1880–81), it gave a boost to the museum's ability to

ORANG-UTAN

Adult Male, collected near Sandakan, N.E. Borneo.

The Orang-utan is found only in Sumatra and Borneo, inhabiting dense forests in the lowlands. Although possessed of immense strength, it is sluggish in its habits, and rarely attacks man, unless surrounded and its escape cut off. It spends most of its time among the branches of lofty forest trees, and is seldom seen on the ground. Its food is composed of fruits, succulent branches, and leaves.

It is one of the anthropoid, or man-like, apes, and is very closely allied indeed in its general structure to man. It differs chiefly in its hairy covering, in the projecting jaws, in the great length of the arms, in the imperfectly formed thumb, and in the prehensile foot.

Fig. 6. Label for C.F. Adams' orang-utan, presumably used in the Auckland Museum display from 1890 or soon after. It measures 235 mm x 153 mm and is printed in gold lettering on cardboard coated dark brown both front and back. The bevelled edge is also gold.

display properly and pleasingly mounted animals. This was at a time when it was difficult to find good taxidermists and the money to pay them.

Cheeseman evidently liked Adams, and in the correspondence, Cheeseman's sharing of news from Auckland, and Adams' expressed wishes to entertain Cheeseman in America, are signs of friendship between the two men. These are strong signs given a prevailing social climate in which all Cheeseman's letters began "Dear Mr Adams", and all Adams' were signed "C.F. Adams", such that none of the available documents disclose Adams' first name.

Adams' Bornean mammals were a major attraction upon their arrival in Auckland and were given pride of place in the museum's main gallery. The museum enabled visitors to see wonders of the natural world, at a time when coloured nature books were expensive and the city had no zoo. Currently, the museum's natural history galleries are devoted entirely to New Zealand material, and the surviving Bornean mammals have been relegated to storage or demoted to curiosities in children's exhibitions.

Adams collected and mounted at least 26 tuataras and New Zealand birds (Table 1), but his output was greater than that, because many other birds and mammals received by the museum in 1885 or 1886 were also likely to have been mounted by him. After more than a century, the survival rate of Adams' specimens at Auckland Museum has been poor—only a quarter of the 22 New Zealand birds (Table 1) and half the Bornean mammals and birds (Table 2). Until about

1940, natural light entered skylights or windows in the museum's galleries (both at Princes Street and at the present Domain site) with the result that stuffed animals became faded. Mounted animals, especially large ones, were vulnerable to damage during the shift of the collections from Princes Street to the Domain site in 1928–29, and during many subsequent moves as galleries were redeveloped and storage locations changed.

Cheeseman's recorded comments from the time of Adams' employment indicate that Adams was a first-rate taxidermist, and images of his specimens (Figs 1, 2, 4, 5) testify to his skills in achieving accuracy and realism. His contribution to Auckland Museum deserves to be recorded.

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